WO 2004/068110 PCT/US2004/002215

## **CLAIMS**

## What is claimed:

- 1. A method for predicting survival of an organism, said method comprising:
  - a) determining telomere length of said organism; and
- b) correlating said telomere length with mortality risk associated with telomere length in a population of the organism.
- 2. The method according to claim 1, wherein in said organism is human.
- 3. The method according to claim 1, wherein telomere length is the average telomere length.
- 4. The method according to claim 3, wherein said average telomere length is determined by polymerase chain reaction.
- 5. The method according to claim 1, wherein said telomere length is determined from blood.
- 6. The method according to claim 1, wherein said telomere length is determined from lymphoid cells.
- 7. The method according to claim 7, wherein said lymphoid cells comprise T cells.
- 8. The method according to claim 1, wherein said population is age matched with said individual organism.
- 9. The method according to claim 8, wherein said aged matched population is within about 10 human years of the age of said individual organism.
- 10. The method according to claim 9, wherein said aged matched population is within about 5 human years of the age of said individual organism.
- 11. The method according to claim 1 wherein said mortality is from infectious diseases.

WO 2004/068110 PCT/US2004/002215

12. The method according to claim 1, wherein said mortality is from vascular disease.

- 13. The method for predicting survival of an organism, said method comprising:
  - a) determining the rate of telomere length decrease of said organism: and
- b) correlating said rate of decrease with mortality risk associated with rate of telomere length decrease in a population of the organism.